

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1. (Canceled)

Claim 2. (Previously Presented) An isolated, enriched or purified nucleic acid molecule which comprises a nucleotide sequence that

(a) encodes a polypeptide comprising the full length amino acid sequence set forth in SEQ ID NO:2; or

(b) is completely complementary to the nucleotide sequence of (a).

Claim 3. (Previously Presented) The nucleic acid molecule of claim 2, wherein said nucleic acid molecule is isolated, enriched, or purified from a mammal.

Claim 4. (Canceled)

Claim 5. (Previously Presented) The nucleic acid molecule of claim 2, further comprising a vector or promoter effective to initiate transcription in a host cell.

Claims 6-8. (Canceled)

Claim 9. (Currently Amended) A cultured recombinant cell comprising an isolated, enriched or purified nucleic acid molecule encoding either the polypeptide according to claim 2, claim 23 or claim 24 or the polypeptide according to claim 2, claim 23 or claim 24 fused to ~~a second~~ an additional polypeptide.

Claims 10-22. (Canceled)

Claim 23. (Currently Amended) An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that

(a) encodes a polypeptide comprising ~~the full length amino acid sequence of the sequence set forth in SEQ ID NO:2, except that it lacks one or more, but~~

~~not all~~, of the following segments of amino acid residues of SEQ ID NO: 2: ~~1-25, 26-113 and 193-485~~, ~~114-493, 137-493 or 193-489~~;

(b) is completely complementary to the nucleotide sequence of (a);

~~(c) encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 2 from at least one but not all of amino acid residues 1-25, 26-113, 114-493, 137-493 or 193-485~~ ~~193-483~~ of SEQ ID NO:2; or

~~(d) is the complement of the nucleotide sequence of (c).~~

Claim 24. (Currently Amended) An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that

(a) encodes a polypeptide comprising ~~the full length amino acid sequence set forth in SEQ ID NO:2, except that it lacks one or more, but not all~~, of the following domains of the amino acid sequence set forth in SEQ ID NO: 2: ~~selected from the group consisting of a signal peptide domain, an the extracellular region, a transmembrane domain, a cytoplasmic domain and a the~~ catalytic domain; or

(b) is completely complementary to the nucleotide sequence of (a).

Claim 25. (Previously Presented) The nucleic acid molecule of claim 2, claim 23 or claim 24, further comprising a nucleotide sequence that encodes a second polypeptide, wherein said second polypeptide is fused to said polypeptide.

Claim 26. (Currently Amended) The nucleic acid molecule of claim 2, claim 23 or claim 24, wherein said nucleic acid molecule further encodes GST ~~a GST-fusion protein~~.

Claim 27. (Previously Presented) An isolated, enriched or purified nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:1.

- Claim 28. (Currently Amended) The isolated, enriched or purified nucleic acid molecule of claim 2, claim 23 or claim 24, further comprising restriction endonuclease recognition sites at the 5' end and/or 3' end;
- ~~so that the nucleic acid molecule is manipulable to contain functional alterations of the nucleic acid sequence that afford an opportunity to promote secretion and/or processing of heterologous proteins encoded therefrom.~~
- Claim 29. (Currently Amended) The nucleic acid molecule of claim 5, wherein said vector is selected from the group consisting of pBR322, pUC118, pUC119, ColE1, pSC101, pACYC 184, pVX, pC194, pC221, pT127, p1J101, BPV, vaccinia, SV40, 2-micron circle, λ gt10, λ gt11, ~~fC31~~, and pMAM-neo ~~and pKRC.~~
- Claim 30. (Previously Presented) The nucleic acid molecule of Claim 5, wherein said promoter is selected from the group consisting of the int promoter of bacteriophage λ , the bla promoter of the β -lactamase gene sequence of pBR322, the CAT promoter of the chloramphenicol acetyl transferase gene sequence of pBR325, the major right or left promoters of bacteriophage λ , the trp, recA, lacZ, lacI or gal promoters of E. coli and the α -amylase or sigma-28 specific promoters of B. subtilis.
- Claim 31. (Currently Amended) The nucleic acid molecule of claim 5, wherein said host cell is a yeast cell, a fungi cell, an insect cell, a plant cell or a mammalian cell; ~~said mammalian cell either in vivo or in tissue culture.~~
- Claim 32. (Previously Presented) The nucleic acid molecule of claim 31, wherein said mammalian cell is selected from the group consisting of a COS Cell, an HEK293 cell, a VERO cell, a 3T3 cell, a CHO-K1 cell, a 32D cell, an SP2/0 cell, a J558L cell, an IMR 332 cell and a PC12 cell.
- Claim 33. (Previously Presented) The nucleic acid molecule of claim 5, wherein said host cell is eukaryotic, and wherein said promoter is selected from the group

consisting of a mouse metallothionein I promoter, the TK promoter of Herpes virus, the SV40 early promoter and the yeast gal 4 promoter.

- Claim 34. (Currently Amended) The nucleic acid molecule of claim 5, wherein said vector is ~~pAdRSVOES~~ or pRK5.
- Claim 35. (Currently Amended) An isolated, enriched or purified nucleic acid molecule comprising a nucleotide sequence that encodes a polypeptide comprising the ~~full-length~~ amino acid sequence set forth in SEQ ID NO:2, except that (a) the cytoplasmic domain of said polypeptide is truncated and (b) relative to wild type ALK-7, said polypeptide is signaling incompetent and/or dominant negative.
- Claim 36. (Currently Amended) The nucleic acid molecule of claim 35, wherein said ~~truncated~~ polypeptide is truncated at position 230 of the amino acid sequence set forth in SEQ ID NO:2 and further characterized by the addition ~~obtained by~~ insertion of a hemophilus influenza hemagglutinin-tag hemagglutinin-tag (HA-tag) at position 230 of the amino acid sequence set forth in SEQ ID NO:2.
- Claim 37. (Previously Presented) An isolated, enriched or purified nucleic acid molecule encoding a constitutively active polypeptide, wherein said nucleic acid molecule comprises a nucleotide sequence that encodes a polypeptide comprising the full length amino acid sequence set forth in SEQ ID NO:2, except that said amino acid sequence contains an Asp at position 194 of SEQ ID NO:2 instead of a Thr.
- Claims 38-40. (Canceled)